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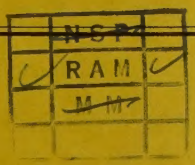
ANNUAL REPORT

OF THE

CAMEROONS DEVELOPMENT CORPORATION

FOR THE YEAR

1957



ANNUAL REPORT

OF THE

CAMEROONS DEVELOPMENT CORPORATION

(Incorporated under Nigerian Ordinance No. 39 of 1946)

FOR THE YEAR

1957.

Head Office:

BOTA, VICTORIA.

CAMEROONS UNDER UNITED KINGDOM ADMINISTRATION.

MEMBERS OF THE CORPORATION :

A. H. YOUNG, C.B.E., *Chairman*
W. J. C. RICHARDS
E. K. MARTIN
J. FINDLAY, M.C.
W. L. BLOOMFIELD, A.C.A.
S. A. ARREY, M.H.A.
GALEGA II, FON OF BALI, to 12th November, 1957
CHIEF L. N. BONANJAH OF ANDEK of NGIE from 13th November, 1957
THE FEDERAL UNDER SECRETARY (ECONOMICS) (*ex officio*)
THE FINANCIAL AND DEVELOPMENT SECRETARY, SOUTHERN CAMEROONS (*ex officio*)

Secretary :

A. C. WOOD, M.A.

General Manager :

H. R. CLEAVER, T.D., F.A.C.C.A.

CONTENTS

Annual Report, 1957

I	Introduction	3
II	The Corporation Membership	3
III	Meetings	4
IV	Corporation Lands	4
V	Agricultural Activities	4
VI	Production	10
VII	Joint Activities with Elders & Fyffes Ltd.... ...	10
VIII	Engineering	10
	(A) Civil	10
	(B) Mechanical Transport	12
	(C) Electrical	13
IX	Marine and Shipping	13
X	Staff and Labour	14
XI	Welfare and Social Services...	15
XII	Education	16
XIII	Medical	17
XIV	Publicity	19
XV	Finance	19

Appendices

1.	Production	21
2.	Summary of Cargo	22
3.	Shipping—Victoria and Tiko	23
4.	Summary of Cultivated Acreage	24
5.	Government Revenue	26
6.	Analysis of Employees by Tribes as at 31st December, 1957	27
7.	Research Division Report for 1957	28

Accounts, 1957 34

ANNUAL REPORT OF THE

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FOR THE YEAR 1957.

I. Introduction.

1957 was a financially successful year. The damage caused by wind storms was the lightest in recent years, but this advantage was offset to a certain degree by the very rapid spread of Sigatoka disease throughout the banana plantations, without which the quantity of fruit of exportable quality would have been greater. Control measures against this disease were intensified, and by the end of the year 3,300 acres were being sprayed by land machines and 12,200 acres from the air by fixed wing aircraft and a helicopter.

Without recourse to any further loans, the Corporation carried out an Agricultural Development Programme in line with its long term scheme, consisting of the planting or replanting of 2,003 acres bananas, 833 acres rubber, 1,178 acres palms, 59 acres cocoa and 53 acres tea.

The tonnage of bananas shipped was the second highest on record, amounting to 53,511 tons, and the tonnage of rubber exported, namely 1,856 tons, was the highest yet. Palm products, though higher than in 1956 and the second highest tonnage reached, did not come up to the estimated tonnage.

The new Oil Palm Mill at Idenau was officially opened in February and the new Tiko/Mpundu railway link was completed in September. The Tea Factory at Tole is nearing completion and will be ready for the processing of tea early in 1958.

Consultations between the Management and the Corporation Workers Union culminated in an increase in wages and salaries of daily and monthly paid labour and Junior Service Staff.

Negotiations with Government were continued for the relinquishment of the Corporation's responsibility for the management and operation of the primary schools which it has established throughout its plantations. At the end of the year the decision of the Southern Cameroons Government was awaited.

The net profit for the year, after making statutory and other provisions, amounted to £38,027, and this sum, as laid down by the Corporation Ordinance will be paid to the credit of the general revenue of the Southern Cameroons.

II. The Corporation Membership.

The appointments of Messrs. Richards, Findlay, Bloomfield and Martin were renewed for a further year, as was also the *ex officio* appointment of the Deputy Secretary to the Council of Ministers (Economic Committee) who is now designated the Federal Under Secretary

(Economics). On the expiry of the term of office of Galega II, Fon of Bali, on 12th November, 1957, the Governor General appointed Chief L. N. Bonanjah of Andek of Ngie as a member for a period of one year.

III. Meetings.

Meetings of the Corporation were held at Bota as follows :—

General Meeting, 21st and 22nd March.

10th Annual General Meeting, 16th April.

General Meeting, 8th August.

General Meeting, 28th and 29th November.

The various Sub-Committees of the Corporation met from time to time for discussion before the General Meetings and on other occasions during the year.

IV. Corporation Lands.

In response to a request from Government, the Corporation agreed to surrender a plot of land adjoining the present airstrip at Tiko, so that the Director of Civil Aviation could arrange for the construction of a new and adequate Terminal building.

Since its inception, the Corporation has had an agreement with Pamol Ltd., whereby the Company harvest and process the Palm fruit on the outlying 1,149 acre Ikassa Estate, and share the profits with the Corporation. In consultation with the Company, the Corporation agreed to surrender this estate to Government, so that they in turn could lease it direct to the Company.

The Corporation surrendered to Government the plot of land required for the Bulk Petroleum Depot at Tiko.

Two small plots of land at Idenau and Mokundange were subleased to the Roman Catholic Mission for the construction of churches.

Government have commenced a scheme for the reconstruction and widening of the Kumba/Tombel road, which runs through the Mukonje and Tombel estates. The re-alignment will necessitate the destruction of some rubber and cocoa, but as the road, when completed, will greatly improve the communications, the Corporation agreed on a token sum for compensation.

V. Agricultural Activities.

(i) *Bananas.*—The total quantity of stems shipped from the Corporation's plantations showed a slight increase over 1956 and a further increase in the average weight per stem compared with previous years was recorded. The relative figures were 58·3 stems per ton in 1957 as compared with 64·3 in 1956, 66·65 in 1955 and 74·13 in 1954. The total tonnage exported by the Corporation was 53,511 which compares favourably with 47,751 in 1956 and 45,539 in 1955. This satisfactory result confirms the success of the Corporation's fertilizer experiments

which led to the adoption of fertilizing as a profitable operation and improved agricultural methods. A high standard of fruit selection for shipment was maintained. In the latter half of the year an increased demand in the United Kingdom resulted in the removal of the ban on six-hand stems but in fact few of these were exported as they did not reach the quality standard required. All fresh fruit exported was wrapped in diothene tubing.

The development programme of 2,003 acres was completed but due to the difficulty of transporting seed from Panama Disease free areas 166 acres were not completed until the last quarter of the year. 9¼ miles of road, 4 miles of railroad and 5 bridges were also built. 424 temporary rooms and kitchens as well as 20 semi-permanent rooms were constructed by plantation labour.

Losses from wind storms amounted to approximately 868,000 plants. The practice of " earthing up " adopted in 1956 also prevented many of the plants that were damaged being completely uprooted.

Elephants again caused considerable damage at Tombel where 115,000 plants, equivalent to more than 200 acres, were lost and short of complete extermination there appears to be no way of preventing this devastation.

Comparative figures for the last three years are as follows :—

	1955	1956	1957
Disease Losses : Panama (plants)	885,000	581,000	637,000
Cigar End (stems)	65,000	9,000	9,000
Storm and Animal Damage :			
Wind Damage (plants)	2,971,000	1,787,000	868,000
Elephant Damage (plants) ...	132,000	159,000	115,000

The year saw a spread of Sigatoka " leaf spot " disease to all the Corporation's banana cultivation and control measures had to be undertaken over a wide area. These measures made it necessary to review all banana cultivations and assess those capable of bearing the considerable expense of control spraying. As a result, approximately 15,000 acres of mature cultivations were assessed as having a potential production capable of bearing the increased cost. The remaining mature acreage was maintained on a " care and maintenance " basis.

On level land " Giraffe " spraying machines continued to be used and on broken land knapsack machines were employed. In the first quarter of the year experimental spraying of an oil based fungicide by helicopter was undertaken. Results by this method were not entirely satisfactory in respect of the cover obtained but, as no other alternative was immediately available to spray cultivations planted on broken or hilly land, it was decided to continue using the helicopter until the end of the year.

Rejections for premature ripening due to Sigatoka disease become heavy by May, particularly at Tombel and in June it was decided to spray from fixed wing aircraft which were already operating in the French Cameroons. In August spraying by fixed wing aircraft was extended to

all approved areas not already covered by ground machines. At the end of the year approximately 12,200 acres were being sprayed from the air and 3,300 acres by ground machinery and satisfactory control was being achieved by these methods.

" Cigar End " disease control was necessary for approximately nine months of the year and was satisfactorily maintained.

The Banana Borer (*cosmopolites sordidus*) made its appearance in appreciable numbers at Tombel and control measures necessitating strict farm hygiene have been instituted until supplies of a suitable pesticide can be obtained.

In June the first case of Panama Disease was found at Tombel and all the Corporation's banana estates now have this disease which continues to spread. Some seed of the disease resistant Lacatan variety introduced in 1954 was made available for field tests in April and multiplication of this seed has continued throughout the year. It is hoped to have enough of this Panama Disease resistant variety available for planting out on an appreciable scale in 1960.

The Ikange dried banana factory operated for seven months of the year and a total of 63 tons was produced.

Production from the Bakweri Co-operative Union of Farmers Ltd. reached a scale where it was considered more desirable for them to deal directly with the marketing and shipping Company and this became effective from 1st October. At the end of September the Corporation had shipped 614,628 stems on behalf of the Union.

(ii) *Oil Palms.*—Production was 3,053 tons of palm oil and 1,579 tons of kernels. Bearing in mind the M'bonge production in 1955 and making due allowances for the change in acreages of mature palms as well as their composition (new and old), 1957 was approaching the 1955 level of production and can be termed an above average season.

At the beginning of the year 926 acres of immature palms, 250 acres at Bota and 676 acres at Idenau, planted in 1953, were brought into harvest. During the course of the year's planting programme 45 acres of old palms were replanted at Bota and 402 acres at Idenau, the total plantings for the year being 1,178 acres of which 578 acres were at Bota and 600 acres at Idenau.

By expanding the palms breeding programme it was possible to accept an order from the Western Region Development Production Board for 50,000 seeds, 39,255 of which had been supplied by the year's end. Reports show that the germination of this seed was highly satisfactory.

In order to ensure the future supply of young parent trees tenera pollen collected at Idenau was used to pollinate tenera trees in the 1951 plantings there for the purpose of obtaining a percentage of pisifera trees from which to select for future pollen collection. The seeds resulting from this pollination have been planted in Bota nursery and during 1958 planting season the seedlings will be planted at both Bota and Idenau ; these, together with selected trees from the Malayan seed planted in

1953, and the Benin seed planted in 1956 at Mokundange, will form the nucleus for the production of future planting material.

The new mill at Idenau came into production at 14th of February, and was officially opened by Mr. E. K. Martin on Saturday, 23rd February, 1957. The 150 ton oil storage tank for the mill was completed in May and the first shipment to the Bulk Oil Plant was made on 31st May, using the new self-propelled barge, the " Sanje."

The first two shipments of plant for the Bota Mill extension were received in November and December and erection commenced. At Ekona Mill work has been carried out on the foundations for the new mill machinery and it is hoped that the new pressing station will be in use by late March 1958 giving a potential increased production of 10 per cent.

The building programme for labour lines at Idenau was completed, as was the camp at Small Mpundu, Ekona. At Bota the balance of the 1956 housing programme was completed.

(iii) *Rubber.*—A total of 853 acres was planted, of which 620 acres were at Missellele, 213 acres at Meanja and 20 acres at Mukonje, the latter being areas which were previously occupied by labour camps now abandoned. The development at Missellele and Meanja was on land which had been abandoned by Banana Division. Preparations were being made by the end of the year to plant 750 acres at Missellele and 210 acres at Meanja.

Five of the R.R.I. 500/600 series of clones were established in 10 acre plots at Mukonje in implementation of the policy of establishing 10 acre plots of all thirteen of the new clones now available, on all estates. This programme for Meanja and Missellele will be completed in 1958.

A schedule of weekly observations on all clones is being submitted by plantations to the Research Division in order that all abnormalities may be noted during the wintering period in 1958.

250 acres which represent the total of the 1950 planting at Missellele, 96 acres of the 1950 planting and 161 acres of the 1951 planting at Mukonje and 92 acres at Meanja were brought into tapping.

The total crop was 4,158,239 lbs. which compares with 3,839,352 lbs. for 1956. The increase in production is 318,887 lbs. of which approximately half derives from Mukonje where yields have previously been disappointing. Tapping of rubber, planted postwar, ceased for three months during the wet season with the object of reducing the risk of damage to tapping panels during the rains. The rest period was successful. Of the rubber produced during 1957, 82·3 per cent. was International No. 1 and 13·4 per cent. compo. This compares with 82·0 per cent. and 14 per cent. in 1956. The quality of compo crepe being produced is steadily improving and the cost of manufacture decreasing.

36 of the 40 smokehouse carriages at Missellele were re-conditioned and are greatly improved. This has effected a substantial increase in the weight carriages will take. At Mukonje a new smokehouse was constructed using old carriages. A new water supply has been taken into

the factory and for the first time the supply is adequate. Filtration tanks have been constructed and will shortly be commissioned. All factory facilities were somewhat strained as a result of the flush crops following the period of rest given to young rubber during the wet season. Additional equipment and facilities which have been authorised should ensure that no difficulty will be experienced in handling crops during the peak season in 1958.

At Missellele 40 labour rooms were built and at Mukonje 100 rooms were built together with 3 new Junior Service quarters. In addition, 68 new rooms have been built at Meanja and the present accommodation will suffice to house the existing labour force in rooms of permanent or semi-permanent construction. At Missellele a bridge was built to carry the new road over a stream and substantial progress was made on the construction of two miles of road.

Labour employed in the Rubber Division at the end of 1957 totalled 3,760 which compares with 3,673 at the end of 1956. The total increase was therefore 87, the area under cultivation having been increased by 761 acres. Many tappers left during the three months tapping rest refusing to work on weeding, the usual alternative work.

During the year the following sales of planting material were effected from the Corporation's Rubber plantations.

Budweed	1,950 yards.
Seed. Tj. 1 selfed	523,000.
Cover Crop	26 tons of seed.

Good reports have been received from all purchasers on the standard of packing and germination.

(iv) *Cocoa.*—As in 1956, the year's production of 205 tons exceeded the estimate of 200 tons, despite a heavier degree of black pod infection. In August and September record yields of 120,960 lbs. and 104,440 lbs. of dried cocoa were produced respectively.

The spraying with copper against black pod disease was carried out from March to November, but some difficulty was encountered in obtaining a coverage of the upper branches, as the canopy has become very much more dense over the past two years and penetration difficult; however, this has been overcome by the use of an improved type of mistblower.

Owing to the very sudden and heavy onset of the main crop the already inadequate labour force was, except for spraying, all employed on harvesting and manufacture from late July to late September, and the picking of infected pods as a separate routine had to be abandoned. This undoubtedly helped to increase the incidence as did the abnormally wet conditions.

Leafless twig disease has been very much less apparent during the year and in 1958 it is only proposed to use an insecticide spray if the attack is considered to be of economic importance.

Elephants were less troublesome than in 1956.

59 acres were planted giving a total of 94 acres of immature cocoa. The 20 acres 1954/55 plantings are being taken into the mature acreage at 1st January, 1958 ; some of these young trees have carried more than 50 pods this year and in places have developed a full canopy.

It was decided to discontinue the re-supplying of individual trees in the mature areas as it was found to be unsatisfactory and uneconomic. At first it was hoped that the seedlings thus released would enable an increased planting programme of 150 acres to be carried out in 1958. However this may not now be the case as due to the abnormally wet conditions this last rainy season, heavy losses have been sustained in the nursery due in part to poor germination from low temperatures, and in part to stem rot brought about by the wet conditions. Use of polythene sheet in the nursery to cover seed planted in baskets has been successful, the sheet being left in place until 2—3 weeks after germination.

It is proposed to carry out this measure still further next season in an endeavour to minimise the losses due to excessive wetting of the seedlings throughout the rains.

Shade trees are now being planted a year ahead of the planting programme and the bananas are being completely felled before planting begins. By these measures it has been found that seedlings make better growth in the early stages.

The planting material used in the 1957 Development was in the main from selected parent trees, but every seventh tree in every seventh row was Upper Amazon, which being self-sterile will ensure that it will be crossed with the local Trinitario variety, and thereby provide future planting material from which to select.

The senior service staff was increased to two in September, by which time an additional house had been built. There is a shortage of labour at Tombel partly due to shortage of labour lines, but it is hoped that the extra 53 rooms to be built in 1958 will alleviate the position.

(v) *Pepper*.—The production for the year shows a decrease of 10,000 lbs., 42,455 against 52,392 in 1956. Most of this is due to the season being unusually late. Harvesting commences in December and ends in April but this year the December crop was 1,030 lbs. compared with 8,823 in December 1956. The total amount harvested is not expected to fall below that of last year.

Spraying with cuprous oxide spray again kept the disease Black Berry in check but so far no way has been found to prevent the Caterpillar pest from damaging vines. Enquiries to this end are in progress.

The facilities for sun drying and packing the pepper ready for shipment have been transferred from the old site at Pundu to the vicinity of the new rubber factory at Meanja.

(vi) *Tea*.—53 acres were planted using only germinated seed which have proved much better than the seedlings previously used.

Various measures to counter erosion have been instituted and it is expected that no further losses of soil will take place.

In anticipation of a start being made on production of made tea during 1958 the old mature bushes were pruned down to 14 in. They are growing vigorously and, together with the 47 acres of 1953/4 planting, are being made ready for plucking. Already women are being trained to do this work but in spite of a considerable increase in wages and the provision of such facilities as a creche with a nurse in attendance, the number of women willing to work is below requirements.

It is anticipated the factory will be completed in March 1958 when a start will be made on production.

5,600 lbs. of tea seed were sold and a further order for 10,000 lbs. was received.

(vii) *Research.*—The report on the Research Division is included as an appendix to this report.

(viii) *Timber.*—During the period 1st January to 31st of August 1957 the activities of the Timber Division were felling and extraction of Timber both at Ekona and Mukonje in order to obtain a profitable return for economic timber standing on land earmarked for future agricultural development, as well as to supply timber for internal consumption.

In the Ekona area the majority of the Timber is Obeche and there is some hardwood at Mukonje. The quality of Obeche exported was very high.

Following the Corporation's policy of divesting itself of extraneous operations, a favourable offer from a Timber Company to handle the felling and export of timber on the Corporation's estates was accepted.

Up to the end of August 4,539 tons were exported, and during the remainder of the year, under the operation of the Timber Company, a further 4,076 tons were shipped, bringing the total for the year to 8,615 tons.

VI. Production.

Comparative figures for the last six years are shown in Appendix 1.

VII. Joint Activities with Elders & Fyffes Ltd.

Previous arrangements with Elders & Fyffes Ltd. for the conduct of the joint railway and hospital activities at Tiko continued.

VIII. Engineering.

A. Civil.

Staff Housing.—Nine new Senior Service houses were authorised of which eight were completed by the end of the year. In addition, a number of old German plantation houses were thoroughly overhauled and in some instances this entailed reroofing. One German house in Tiko was converted into two flats and a number of smaller houses had increases made to the bedroom accommodation.

Hospital and Medical Buildings.—Nurses' changing rooms being built at the Tiko General Hospital were essentially complete by the end of the year.

Factory and Workshop Buildings.—An additional permanent smokehouse was built at the Meanja Rubber Factory to deal with increased production. A semi-permanent smokehouse was constructed at Mukonje by plantation staff. Considerable modifications were carried out to the Tiko Crepe Dry House, which is now heated by oil instead of electricity as previously. This has resulted in an appreciable increase in efficiency. Several miscellaneous buildings were also completed.

Mile 29 Sawmill was transferred to the Engineering Division late in the year. When the installation of new equipment and various other alterations, now in hand in Tiko Sawmill, are complete, it is intended to transfer further equipment from Mile 29 to Tiko and close the Mile 29 Sawmill, thus concentrating all timber conversion in the Tiko mill.

A spray mixing station was constructed at Ekona to deal with the pre-mixing of chemicals used for the control of Sigatoka disease. The installations were complete by the end of the year and a water treatment plant to supply clean water to the mixing station is due to come into operation early in the New Year.

Roads and Communications.—Tiko/M'Pundu railway was completed and steam locomotives are now operating as far as M'Pundu Beach. A line is being laid to the Rubber factory and to new marshalling yards at Meanja. On completion it is intended to evacuate bananas direct from Meanja to Tiko Wharf by rail.

Work on the relaying and ballasting of track on Tiko Plain was virtually completed during 1956, and during 1957 it was therefore possible to reduce substantially expenditure on track maintenance in this area.

Considerable scour occurred at the centre pier of Bibundi Bridge during the rainy season. Remedial works have in some measure reinstated the river bed level.

Four Air Strips have been constructed on plantations at Mussaka, Tombel, M'bonge and Boa, for use in connection with the Corporation's spraying operations. Increasing use is being made of these strips to provide better communications to outlying estates and a strip is about to be started at Bota.

Water Supplies.—A new water supply system at Tombel was completed and a number of minor water supply schemes, to serve individual houses and camps, were installed, operated by hydram where possible.

Workshop Activities.—With the closing down of Timber Division, two further D6 tractors were added to the Division's fleet of earthmoving equipment, in addition to a number of D2 Caterpillar tractors used in the preparation of roads for the Giraffe spraying machines. The increase has been absorbed by the demand from the plantations for this class of equipment, with its resultant economy in labour, and by hire to local firms and contractors. The demand for this latter service has increased considerably. The Sawmill and Joinery Workshop output has been maintained at a high level in supplying in the first instance the needs of the Corporation and thereafter wherever possible the ever growing demand from local consumers.

All the Corporation's requirements for smokehouse carriages, latex transportation tanks, etc., are now being manufactured in our own Workshops. A plant low loader which was brought into use during the year has proved its worth, both in the transport of Corporation plant and hire to the public.

B. Mechanical Transport.

It was possible to effect a reduction of a further 20 vehicles in the Corporation's fleet, which now numbers 276. The continued policy of replacing petrol by diesel engined lorries (of which there are now 42 in service) and the sale of the Timber vehicles accounted for a reduction of 12 lorries. It was necessary to increase the number of 4 wheel-drive vehicles, but this increase was more than counterbalanced by the reduction in saloons, pick-ups and small station wagons brought about mainly by the increased participation in the Private Car User Scheme.

By this scheme, Senior and Intermediate Service Staff may be permitted to use their own cars on duty, drawing a basic and mileage allowance and the Corporation assists by advancing loans for the purchase of a car.

The introduction of new models necessitated an increase of approximately £16,000 worth of stocks of spares held, but the turnover of issues and sales when compared with 1956, showed a rise of nearly 40 per cent.

Business with the general public continues at a satisfactory level. Comparative figures for this year and the previous years are as follows :—

	1954	1955	1956	1957
Sale of new vehicles ...	£64,544	£40,258	£59,788	£41,540
Sale of secondhand vehicles	1,663	6,974	6,018	5,010
Sale of Spares and Tyres ...	20,150	24,141	28,875	35,553
Repairs	5,971	9,870	15,142	13,836
Transport hired	4,135	5,919	17,935	14,088
	£96,463	£87,162	£127,758	£110,027

Sales of commercial vehicles, of which 30 were sold for a total of £29,190, did not maintain the high level of 1956, mainly due to the reduced purchases by Government and the increased import of competitive makes. The sale of saloon cars rose, however, to 21, of which the majority were purchased by participants in the Private Car User Scheme.

Repairs for the public continued to keep the workshops fully occupied, and the fall in revenue from transport hire is due to the greater demand for Corporation needs, thus leaving fewer vehicles available to supply the constant and increasing demand for the hire of both lorries and saloon cars.

The labour force, employed in the main garage and the four maintenance depots remained numerically the same, but the number of artisans has now increased to 40, as a result of the emphasis laid on training in these garages.

C. Electrical.

A new overhead line system was run to the Holtfoth Area to supply the Intermediate and Senior Service houses and some of the poles were utilised to provide lighting for the marshalling yard.

Three transformers were installed, the old German transformers at M'Pundu Oil Mill and Ekona being replaced by new 100 KVA transformers and the 50 KVA transformer in Ekona residential area was replaced by a 200 KVA transformer.

The old German H.T. Switchgear controlling the H.T. supply to M'Pundu and Meanja was replaced by new switchgear, to comply with the Supply Authority's regulations.

The lighting in Tiko Main Stores was improved by the conversion to the more efficient fluorescent lamps and Tiko School was wired and connected to the main supply.

A telephone system incorporating a 15 line Magneto Telephone Exchange was installed at Idenau. Tie-line equipment was fitted between Bota Central Exchange and Bota Automatic Exchange.

IX. Marine and Shipping.

During 1957 the Corporation in its capacity as Wharf Authority continued to handle all imports and exports through the ports of Bota and Tiko, and to act as Agents for main Shipping Lines including Elder Dempster Lines, Palm Line, Guinea Gulf Line, Farrell Lines, Nautilus Line, Delta Line, Swedish West Africa Line, etc. The Shipping Division also acts as stevedores for the Fyffes Line of Banana steamers.

The volume of trade at Bota and Tiko for 1957 is summarized in table form in Appendix 2. Imports rose by some 3,600 tons over 1956. Exports from Bota show a small decrease of 400 tons, but Tiko has an increase of just under 30,000 tons, most of which was timber. This increase in tonnage has naturally thrown a heavy strain on Corporation launches and personnel but during the year no vessels were delayed and both ports maintained the reputation of giving a quick turn round.

Figures of Produce shipped from both ports during 1957 and as compared with 1956 were :—

	1956 *Tons*	1957 *Tons*
Cocoa	5,954	4,665
Palm Oil	2,725	2,660
Palm Kernels ...	1,536	1,296
Rubber	1,645	1,746
Pepper...	22	19
Timber	5,475	37,926
Coffee	672	967
	18,029	49,279

The Corporation's fleet of craft is used for lighterage work at Bota and the carriage of cargo to and from Bota, Tiko and the Wharves covering M'Bonge, Tombel and Doula. General cargo and produce are carried for concerns other than the Corporation.

X. Staff and Labour.

Establishment.—The total number of employees increased during the first seven months of the year to a peak of 19,220 and then decreased during the last five months to a level which shows little change to that at the end of 1956.

The position at 31st December, 1957, was as follows :—

Senior Service	186
Intermediate Service	37
Junior Service, including employees on monthly agreements	1,128
General Labour Force	16,644

Mr. J. B. Som, Senior Field Assistant of French Cameroonian descent, who has been with the Corporation since its inception, was appointed M.B.E. (Hon.) in the Birthday Honours, and Mr. Marcus Hongla, Extra Field Assistant, was awarded the Governor General's Certificate of Honour. Both employees are in the Banana Division, and were presented with the insignia of their awards by the Commissioner of the Cameroons.

Two African Intermediate Service employees in the Rubber Division were promoted to Field Assistants in the Senior Service, and one African in the Junior Service, after four years' training in the United Kingdom, was appointed to the Senior Service post of Laboratory Technician in the Research Division. Three Junior Service employees were promoted to Intermediate Service and eight Assistant Chief Clerks were appointed from the Corporation staff and two from outside the Corporation.

Wages and Conditions of Service.—As a result of negotiations in the Central Consultative Committee, the earnings of the daily-rated employees and the monthly-rated and Junior Service employees were increased from 1st April, 1957, and these increases amount to £50,000 per annum. The Union and Management entered into an eighteen months' agreement during which time no general review of the wages rates would be made. This is the first occasion that a major wage claim has been negotiated and agreed between the Corporation Management and Union without resort to conciliation or arbitration.

Negotiations also resulted in wage and salary adjustments for some grades of Marine labour, shopkeepers and Plant and Locomotive operators. Amendments were also made to the rules relating to sick leave and the payment of gratuities on redundancy.

A new incentive scheme for Rubber Tappers was introduced and incentives are now offered for greater output and skill of employees engaged in the plantations of the three main crops.

Cameroons Development Corporation Workers' Union.—Relations between Management and the Union throughout the year have been cordial despite many controversial subjects that have come under discussion, and this is reflected in the fact that only 0·04 per cent. man-days were lost through trade disputes, all as a result of unofficial strikes which the Union representatives took immediate steps to settle.

Regular meetings of the Central Consultative Committee have been held and the Bota, Tiko and Ekona Area Committees are operating satisfactorily. The Northern Area Committee has not functioned owing to poor road conditions and efforts to bring the representatives together have been unsuccessful, but local consultation in the three plantations concerned is encouraged.

Personnel Department.—An assistant Personnel Officer attended a course on Public Corporations and Boards at the University College, Ibadan and the Personnel Officer attended the Inter-African Labour Conference of the Committee for Technical Co-operation in Africa, South of the Sahara, at Lusaka, Northern Rhodesia at the invitation of the Federal Government of Nigeria.

Provident Fund.—At the close of 1957 there were 1,056 members of the Fund, the market value of the Fund's investments being £322,917 8s. 1d.

Retiring Benefits.—453 gratuities, amounting to £16,777 were approved during 1957. This shows an increase of £1,020 over 1956, although the number of retirements was 37 fewer. In addition to the gratuities for service with the Corporation, *ex gratia* payments are available to employees in respect of their service on the plantations prior to the Corporation's existence. Payments to 218 employees amounting to £1,398 were authorised during the year.

Workers' Shops.—The 20 Corporation Workers' Shops continued to provide a very satisfactory service in maintaining supplies of essential foodstuffs and commodities on all the plantations thus helping to keep the prices of the local markets steady. The sales amounted to over £133,500.

XI. Welfare and Social Services.

Recreation.—Further economies were effected in the Welfare Organisation, but the programme of activities was increased and now includes a Wrestling Championship. On the foundations laid by the Corporation, have been built the Southern Cameroons Amateur Football Association and the Southern Cameroons Amateur Athletic Association. The Welfare Department has encouraged and assisted the development of these Associations by the loan of equipment and sports grounds, both for practice and competitions. Members of the Staff have also helped by coaching and serving on committees.

A Junior Service Club was formed and given premises in Bota and is running successfully with over 40 members.

News Sheet.—The Welfare News Letter was published regularly, with a circulation of 500.

Film Unit.—The mobile cinema units maintained regular shows in all areas throughout the year. Due to the progressive deterioration of the Kumba-M'bonge road the units for M'bonge and Boa are now despatched by Corporation launch from Bota with a consequent improvement in the regularity of the service to those stations. Altogether a total of 935 shows were given to an estimated audience of 212,000.

Due to the closing of some camps both by the Corporation and by Elders & Fyffes there has been a reduction in the number of camp shows given. This has, however, been more than compensated for by an increase in the number of recoverable shows and the mobile units have remained therefore fully employed.

The total revenue from film exhibition was £2,800, compared with £2,580 in 1956.

Amplifier equipment was installed and operated for 120 High Life dances and, as usual, public address equipment was installed as required for National Day celebrations, and other functions.

The radio and projector repair section has again shown a considerable increase in business with the general public and other organisations. The revenue from repairs amounted to £3,000 (compared with £1,100 in 1956) and a further sum of £1,000 resulted from sundry sales of technical equipment and spares.

The value of work to the public in the photographic section increased from £960 in 1956 to £1,200 in 1957 despite the fact that the construction of the processing room had to be deferred for another year. A start on the building will be made early in 1958.

Radio Telephone communication has been maintained between Bota and Tiko and the outstations.

XII. Education.

General.—Negotations between the Corporation and the Southern Cameroons Government regarding the transfer of Corporation Primary Schools are still proceeding. The missions, who managed four of the Corporation-owned schools, have agreed to take over full ownership and full financial responsibility of these schools.

Primary Schools.—During 1957, the Corporation owned and managed ten primary schools, of which three have Senior Departments and two more will start Senior Departments in 1958.

The number of children enrolled in these schools was 1,209 compared with 1,280 at the beginning of the year and 1,045 at the end of 1956.

The staffing of the schools continues to be satisfactory. Of the 53 teachers employed by the Corporation, 45 have received professional training and 37 are certificated, 14 of the teachers are women of whom 9 are certificated, 11 teachers joined the staff after professional training under Corporation sponsorship and 6 teachers have been accepted for professional training in 1958.

The number of children attending the two P.N.E.U. schools is steadily increasing, averaging an enrolment of 24 pupils for the two schools combined.

Scholarships.—The Corporation makes an annual grant of £5,000 to the Southern Cameroons Scholarship Board from which awards for Higher and Secondary education are made. In 1957, the Corporation also made 14 awards for professional and technical training. One

employee was sent to England for training in electrical installation and maintenance and one to Lagos for special training in caterpillar traction. The remaining twelve awards were for teacher training—five to employees and seven to non-employees. Altogether, 62 awards have now been made to Corporation employees and 47 non-employees have been sent for teacher training.

Adult Literacy Classes.—About 100 evening literacy classes at 40 centres were held three times a week in three grades, those employees reaching the top grade being allowed to take an examination prior to the award of literacy certificates. The number of literacy certificates awarded during the year was 109.

Classes in English and Arithmetic are held for employees who have completed the Senior Primary School Course, mainly office workers, leading to the Elementary Examinations of the Royal Society of Arts. One purpose of these classes is to improve the general education of employees prior to admitting them to more advanced technical courses in book-keeping, etc.

Technical classes in various branches of Engineering were held for about 45 employees. These classes are tutored by Senior Service volunteers.

Promotion Examinations.—Of the 272 candidates who entered for these examinations, 16 were successful.

Library.—Sixteen library boxes, each containing approximately 70 books to suit employees at various educational levels, are circularised on the Corporation plantations. Reading rooms and periodicals are provided in the main centres.

XIII. Medical.

During 1957 the Corporation's Medical Service derived further benefit from the Nurses Training School which it operates. In June 1957 five Nurses passed the examination of the Nursing Council for Nigeria and in December 1957 a further 14 sat the examination and all were successful. As a result the Corporation now has 66 Nigerian registered nurses which is a very great improvement on the position six years ago when there was not one in possession of the certificate of the Nursing Council for Nigeria.

The staffing position regarding Medical Officers and Nursing Sisters was satisfactory but it is recorded with regret that a promising Cameroonian Medical Officer left the service of the Corporation during the year for an appointment with the University College Hospital, Ibadan.

The Corporation estates, for medical purposes, are divided into four areas with the following facilities :—

Bota.

Bota General Hospital with 96 beds, including 9 for maternity cases, 17 female beds, 6 cots and 6 beds for isolation.

Idenau Auxiliary Hospital with 16 beds.

7 Aid Posts.

There are approximately 200 Senior Service employees and dependants and 9,500 other employees and dependants at risk in the area.

Tiko.

Tiko General Hospital with a total of 236 beds which includes 24 for maternity cases and 12 cots, 18 female beds and 8 for isolation.

Tiko Cottage Hospital with 16 beds for Senior Service staff and their families.

Pamol Bwenga Hospital with 8 beds.

Missellele Auxiliary Hospital with 29 beds.

13 Aid Posts.

There is also a Nurses Preliminary Training School and Tiko General Hospital is recognised as a Nurses Training School.

In the Tiko area those receiving attention at Tiko Hospitals are employees of the Corporation, Messrs. Elders & Fyffes Limited, Likomba, and Pamol Ltd., Bwenga Estate, and the wives and children of those employees.

The numbers at risk are approximately 190 Senior Service employees and dependants and approximately 15,250 other employees and dependants.

Ekona.

Ekona General Hospital of 71 beds including 6 maternity, 14 female and 11 isolation beds.

8 Aid Posts.

The numbers at risk are approximately 65 Senior Service employees and dependants and approximately 9,500 other employees and dependants.

Mukonje.

Mukonje General Hospital with 43 beds including 10 female beds and 4 for isolation.

Tombel Auxiliary Hospital with 16 beds.

Mokoko Auxiliary Hospital with 16 beds.

14 Aid Posts.

The numbers at risk are approximately 35 Senior Service employees and dependants and 10,500 other employees and dependants.

Although Smallpox was present in the Cameroons during the early part of 1957 there were not many cases affecting the employees of the Corporation where a high rate of vaccination obtains. During the year 27,739 smallpox vaccinations were performed.

A serious epidemic of Asiatic Influenza became apparent in September and October and at one period it is estimated approximately one-third of the Corporation's employees were affected, although by no means all affected were absent from work. Few cases had a serious result and those that had were either among children or aged relatives of the employees.

The main causes of disease as hitherto have been respiratory and alimentary. Malaria is seen but is not common except at Mukonje. Where the social life of employees confines them to camps or nearby villages which are regularly sprayed by the Corporation there is a very low incidence of malaria. Tropical ulcer, at one time a common ailment, has been even more rare than in the previous two years.

A specialist orthopaedic surgeon visiting the Corporation under the sponsorship of the Nuffield Trust has given his opinion that the Corporation's Accident Service is the best he has seen in West Africa.

Antenatal and child welfare clinics are becoming increasingly popular. Malnutrition is only seen now in children in the post-weaning age but this is uncommon, only one case of Kwashiorkor being diagnosed at Tiko during the whole year.

The campaign against simulium, the vector of Onchocerca Volvulus of the filaria family, was repeated in 1957 with the result that in some parts the fly was practically eliminated for six months. It is intended to repeat the campaign in 1958 with a dosage extended over a longer period.

The Corporation records its appreciation of the clinical services of the Medical Officer, Lobe (Pamol Ltd.), at Mokoko Auxiliary Hospital.

XIV. Publicity.

The Management publishes monthly a short news letter giving details of the month's production and activities generally. This letter is circulated to all Government Departments, the Press and commercial firms, thus helping to keep the public fully informed of the Corporation's progress. The demand for this letter has steadily increased and the circulation is now 250.

XV. Finance.

(i) *Capital Structure.*—Following on the report made by Messrs. Harmood Banner, Lewis and Mounsey, Chartered Accountants, the Federal and Southern Cameroons Governments stated that they would welcome an investment by the Colonial Development Corporation in the Corporation, and invited the Colonial Development Corporation to undertake such investigation as they considered necessary as a preliminary to the opening of formal negotiations in regard to the terms and conditions of eventual participation.

A team of investigators visited the Cameroons during June and July and carried out extensive enquiries into the financial and physical structure of the Corporation and its agricultural potential. This was followed by a visit, later in the year, by Lord Reith, Chairman of the Colonial Development Corporation.

(ii) *Government revenue resulting from Corporation activities.*—The Southern Cameroons Government was paid the sum of £15,117, being the unappropriated profit of the Corporation in 1956, but in addition the Corporation paid to Government over £240,000 by way of import and export duties, Company and employees Income Tax, licences, etc., the largest item being export duty which amounted to £104,240. In 1958 this latter figure will be considerably higher due to increases in the export duty on bananas. Export duties in respect of the Corporation's sales of Palm Oil, Palm Kernels and Cocoa were paid by the Nigerian Central Marketing Board.

A schedule showing the Government revenue resulting from the Corporation's activities since 1947 is to be found in Appendix No. 5.

(iii) *Results to 31st December*, 1957.—The Balance Sheet shows that £781,829 was spent during the year on further development, bringing the total to £6,569,744, and loans were reduced by £50,000 to £2,083,489. Nevertheless, the Corporation's net liquid surplus assets improved slightly to £1,471,462, all of which is fully employed as working capital.

No action has been taken on the Harmood Banner recommendation and no further development can be embarked upon until the Corporation's financial structure is strengthened. The assets arising from development stand in the Balance Sheet at less than one-third of the original cost, although none are more than ten years old ; their book value exceeds the total loans outstanding.

The gross profit amounted to £1,088,658. Statutory Depreciation required £744,808. £86,667 has been provided for interest on fixed loans and Income Tax absorbs £101,300. £100,000 has been transferred to General Reserve and £18,175 to Reserve for Retiring Gratuities. There remains a surplus of £38,028 available for distribution to the Commissioner of the Southern Cameroons, which is £22,911 more than last year.

The Members of the Corporation record their appreciation of the services rendered by the staff at all levels and by the labour force which has been so essential to the progress made. The Corporation also desires to record its appreciation of the assistance and advice provided by many Government Departments and Government Officers.

(Signed) A. H. YOUNG, *Chairman.*
W. J. C. RICHARDS, *Member.*
J. FINDLAY, *Member.*
S. A. ARREY, *Member.*
C. P. THOMPSON, *Member.*
W. L. BLOOMFIELD, *Member.*
J. MURRAY, *Member.*
CHIEF L. N. BONANJAH, *Member.*
E. K. MARTIN, *Member.*
A. C. WOOD, *Secretary.*

NEW RUBBER PLANTING

OIL PALM NURSERY

TOLE TEA

TOLE TEA FACTORY

AERIAL SPRAYING OF BANANAS

AERIAL SPRAY ATOMISER

AIRSTRIP — MBONGE

TIKO/MPUNDU RAILWAY

	1952	1953	1954	1955	1956	1967
Bananas—Total for British Cameroons Shipments—stems	5,746,946	5,893,294	5,666,901	4,394,851	4,594,271	4,715,267
Cameroons Development Corporation Estates Shipments—stems	3,743,801	3,846,585	3,904,863	3,034,222	3,074,397	3,121,268
tons	46,288	54,077	52,739	45,539	47,751	53,511
Dried Bananas ... ... tons	234	124	22	102	102	63
Palm Oil ... ... „	2,593	2,715	2,862	3,349	2,695	3,052
Palm Kernels ... ... „	1,576	1,712	1,739	2,010	1,499	1,580
Rubber ... ... „	1,559	1,800	1,595	1,525	1,714	1,856
Cocoa ... ... „	81	81	100	110	219	205
Pepper ... ... „	2·6	2·5	6·1	7·5	23·4	18·9
Timber—Log shipments ... ... „	—	—	421	1,340	3,627	8,615

SUMMARY OF TRADE AT BOTA AND TIKO PORTS 1948—1957 INCLUSIVE.

Port	Inward Cargo (in tons)	Outward Cargo (in tons) excluding Bananas	Creek Sailings (in tons) excluding Bananas	Bananas Exported	Passengers		Vehicles	Mail by Bags
					Saloon	Deck		
1957:								
Bota	35,929	13,761	8,327	4,715,267	353	2,617	219	6,055
Tiko	13,738	38,200	6,841		368	765	177	1,918
Total 1957	49,667	51.961	15,168	4,715,267	721	3,382	396	7,973
Total 1956	46,034	22,121	19,912	4,594,271	859	3,982	372	8,678
Total 1955	48,669	16,303	19,377	4,394,851	750	5,135	303	8,014
Total 1954	45,834	12,304	16,772	5,666,901	927	4,293	281	7,149
Total 1953	35,528	11,347	10,003	5,893,294	968	5,311	245	7,863
Total 1952	41,995	11,617	13,565	5,747,040	1,017	6,885	310	6,555
Total 1951	32,423	8,213	12,535	5,773,208	704	7,761	187	6,134
Total 1950	28,459	8,508	13,502	4,680,419	530	6,556	195	4,929
Total 1949	21,193	7,774	6,825	5,137,600	877	3,896	187	3,560
Total 1948	13,273	5,262	9,598	4,078,408	599	6,828	143	3,178

SHIPPING—VICTORIA.

Number, Nationality and Net Registered Tonnage of Vessels Entered and Cleared for 1957—1st January–31st December.

Nationality	Number of Ships	Net Registered Tonnage
BRITISH	140	399,552
NORWEGIAN	22	42,399
GERMAN	7	14,657
SWEDISH	5	8,707
SWISS	3	7,752
NETHERLAND	2	6,235
DANISH	2	4,980
ITALIAN	1	1,138
TOTAL	182	485,420
TIKO		
BRITISH	100	317,710
NORWEGIAN	19	39,961
GERMAN	6	12,407
SWEDISH	5	8,707
SWISS	3	7,752
NETHERLAND	2	6,235
DANISH	2	4,980
ITALIAN	1	1,138
TOTAL	138	398,890

NOTE: Bota vessels do not include vessels entering for purpose of dropping Pilot only.

APPENDIX No. 4.

ACREAGE STATISTICS, DECEMBER 1957

BANANAS

	Acreage at 1/1/57.	New Planting 1957	Abandonments for disease, etc.	Care and Maintenance	Full Cultivation	Total at 31/12/57.
Tiko ...	5,073	700	717	1,824	3,232	5,056
BOTA ...	2,397	—	965	633	799	1,432
Ekona ...	3,620	700	142	620	3,558	4,178
Molyko ...	3,112	—	100	—	3,012	3,012
Tombel ...	2,831	200	303	—	3,728	2,728
Meme ...	3,388	103	190	181	3,120	3,301
Mukonje ...	166	300	—	—	466	466
Total ...	20,587	2,003	2,417	3,258	16,915	20,173

RUBBER

	Mature	Immature	Total	Preparation for 1958 planting
Missellele	4,231	3,111	7,342	750
Tiko	2,085	—	2,085	—
Meanja	1,709	1,331	3,040	210
Mukonje	2,970	2,433	5,403	—
Total	10,995	6,875	17,870	960

PALMS

	Mature	Immature	Total	Preparation for 1958 planting
Bota/Moliwe	7,932	2,271	10,203	650
Ekona	2,237	—	2,237	500
Idenau...	1,987	2,628	4,615	157(*a*)
Total	12,156	4,899	17,055	1,307

(*a*) Replanting.

COCOA

	Mature	Immature	Total	Preparation for 1958 planting
Tombel	1,065	94	1,159	150

TEA

	Mature	Immature	Total	Preparation for 1958 planting
Tole	108(*b*)	80	188	50

(*b*) Includes 20 acres seed garden.

PEPPER

	Mature	Immature	Total	Preparation for 1958 planting
Ekona	44	—	44	—

GOVERNMENT REVENUE RESULTING FROM C.D.C. ACTIVITIES

(To Nearest £10).

	Company Income Tax	Concession Rent	Export Duty Bananas	Sales Tax Palm Products	Sales Tax Cocoa	Export Duty Rubber	Import Duty	Surplus Profits	Total
	£	£	£	£	£	£	£	£	£
1947	—	15,720	—	—	—	—	1,590	—	17,310
1948	158,000	40,000	34,570	—	—	—	8,050	—	240,620
1949	198,830	40,000	24,470	—	—	—	15,620	54,350	333,270
1950	244,130	40,000	23,030	—	—	—	21,980	22,540	351,680
1951	268,140	40,000	33,150	—	—	47,950	22,440	53,300	464,980
1952	341,110	56,610	32,820	—	—	43,370	71,380	55,560	600,850
1953	76,410	40,700	35,380	—	—	22,770	52,910	51,110	279,280
1954	187,160	41,030	37,020	—	—	20,960	51,180	60,290	397,640
1955	139,580	40,950	30,030	15,180	440	34,260	77,410	19,200	357,050
1956	Nil	40,870	31,410	13,530	840	29,660	38,960	Nil	155,270
1957	11,110	40,870	65,200	15,370	820	39,040	50,300	15,120	237,830
	£1,624,470	£436,750	£347,080	£44,080	£2,100	£238,010	£411,820	£331,470	£3,435,780
1958 Accrued due	101,300	—	—	—	—	—	—	38,030	139,330
	£1,725,770	£436,750	£347,080	£44,080	£2,100	£238,010	£411,820	£369,500	£3,575,110

The above figures do not include Export Duties in respect of the Corporation sales of Palm Oil, Palm Kernels and Cocoa, which are paid by the Nigerian Central Marketing Board.

Further income is derived by the Government from Income Tax payable by employees, Road Tax on Corporation's vehicles and Timber Royalties.

APPENDIX No. 6.

CAMEROONS DEVELOPMENT CORPORATION

Analysis of Employees by Tribes, as at 31st December, 1957.

Tribe.	*No. Employed.*
VICTORIA DIV.	
Bakolle	8
Bakweri	592
Balong	13
Bamboko	6
Isubi (Bimbia)	25
Mongo	14
	658
KUMBA DIV.	
Bafo (Bafaw)	29
Bakosi	263
Bakundu	46
Balong	49
Balue	338
Balundu	131
Balundu-Badiko ...	44
Bamboko	6
Barombi	4
Basosi	84
Bima	29
Korup	1
M'bonge	356
Ngolo-Batanga	374
	1,754
MAMFA DIV.	
Assumbo	31
Bangwa	250
Bayangi	572
Boki	75
Ekwe	41
Keaka	394
Mbo	158
Mbulu	95
Monka	273
Mundani...	102
Obang	90
Takamanda	83
Widekum	87
	2,251
BAMENDA DIV.	
Bafut	736
Bali	467
Bamunka	337
Menemo	555
Moghamo	252
Ngemba	447
Ngie	489
Ngwaw (Ngono) ...	296
Nso (Banso)	82
	3,661

Tribe.	*No. Employed.*
WUM DIV.	
Aghem	1,008
Bum	89
Esimbi	48
Fungom	801
Kom	427
	2,373
NKAMBE DIV.	
Kaka	463
Mbaw	2
Mbembe	34
Mfumte	38
Misaje	7
Nsungli	175
	719
NIGERIA	
Boki	227
Edo (includes Bini) ...	23
Efik-Ibibio	2,115
Fulani	3
Hausa	1
Ibo	2,129
Ijaw	129
Tiv	507
Yoruba	11
Other Nigerians... ...	328
	5,473
FRENCH CAMEROONS	
Bafia	64
Bakoko	68
Bamiloke	139
Bana	79
Basa	95
Duala	23
Ewonde (Yaunde) ...	163
Other French Cameroons	264
	895
Other Non Nigerians ...	25
TOTAL	17,809

CAMEROONS DEVELOPMENT CORPORATION

RESEARCH DIVISION REPORT FOR 1957.

(a) BANANAS.

1. Soil Investigations.

The results from banana fertilizer trials continue to support the present NPK compound fertilizer policy and to show that higher rates of application will increase production still further provided certain conditions are fulfilled.

The ratio between N, P and K must be correct. At Molyko yields from the standard 12 cwts. of 10–9–29 compound per acre were improved by additional N and K when the ratio of N : K was 1 : 3 or 1 : 3·5 but were decreased when the ratio was 1 : 1. At Ikange-Tiko young Lacatan bananas receiving various amounts of 10–9–29 compound showed the greatest growth at the highest application rate, an 80 per cent. increase over the control at 1 ton per acre.

The soils must be capable of a high productivity. In the Tiko area Panama Disease spread most rapidly in soils where there were gravelly layers or hard pan within 2 feet of the surface. As a result of this investigation and of the knowledge gained from photo-analytical interpretation of aerial photographs it was considered that the 1957 banana plantings in N'Sonne Moliwe and Lifongo-Tiko were dubious propositions and certainly incapable of a minimum annual production of 3 tons per acre over 10 years.

Cultivation methods must be of a high standard. Any factor which limits the achievement of the potential productivity will reduce the efficiency of a fertilizer programme. For instance, the full benefit from NPK compound is not obtained if the plants are not earthed up. The additional roots originating from the earthed up part of the corm function as normal roots and therefore increase the effectiveness of the root system.

The results of an NPK fertilizer trial in Punge-Tiko showed that as well as increased growth and production the losses due to drought and disease were reduced from 56 per cent. to 16 per cent., largely owing to K treatment.

2. Disease and Pest Investigations.

Sigatoka Leaf Spot Disease.—Spraying of all banana areas in production to control Sigatoka has been adopted during the year, and considerable research has been expended towards effecting increased efficiency and economy for the control methods at present employed.

Where the ground is suitable the most efficient machine is the K.D. Giraffe, mistblowing Banacobre Sandoz at 2·7 lbs. in 9 gallons of water per acre. Checks on droplet spectra led to adjustments resulting in the field efficiency being doubled, and a basic programme was worked out for making the best use of these machines. In the areas originally sprayed it has already been possible to lengthen the cycle from 2 to 3 weeks.

Large areas where either ground equipment was lacking or the terrain was too rough have been sprayed by fixed wing aircraft using Micron atomisers to apply 1 gallon of oil containing 13 per cent. Schlofog C per acre on a fortnightly cycle. Aerial spraying began at Tombel in early June and by August a high degree of control had been obtained. Signs of oil damage to the banana plants were, however, becoming apparent. In plantations where aerial spraying began during the late rains the speedy initial control achieved has been even more rapid.

The possibility of oil damage had been anticipated early in the year, and experiments with copper in an oil-water emulsion were begun using the knapsack machines which have been employed in conjunction with the Giraffes.

Copper in water sprayed on to the upper surfaces of the leaves prevents the formation of the water or dew borne conidial spores on spots and stops their germination. The result is little or no further infection and the " burnt " areas resulting from intense spotting, in which the airborne ascospores are produced, are avoided.

Oil does not kill the fungus but its regular application prevents the development of spots to the stage where conidial spores can be produced. The oil is absorbed by the leaf tissues and before it can be " digested " by the plant it is liable to cause premature death of the leaves and a reduction in fruit weight. This explains the rapid control achieved by oil spraying as well as the possible deleterious effects on the banana now being observed.

Experiments have shown that the viscosity as well as the unsulphonated residue of an oil indicate its suitability for spraying, that an oil emulsion is less liable than a pure oil to prove harmful to the banana plant, that it is not necessary to add copper to the oil emulsion and that the cycle for oil spraying must not be extended beyond 2 weeks. It has therefore been possible to recommend that aerial spraying should be done with a suitable oil alone at 1 gallon per acre, that in areas where spraying is to be started by Giraffes there should be 2 to 4 applications of oil emulsion (20 : 80) at 6 gallons per acre on a 2 weekly cycle to achieve quick control followed by Banacobre Sandoz at 2·7 lbs. in 9 gallons of water per acre on a 2 and later 3 weekly cycle to maintain control, and that with knapsack sprayers the application should be oil emulsion (60 : 40) at 2 gallons per acre on a 2 weekly cycle.

In the laboratory it has been shown that as many as 17 successive ascospore discharges can be obtained by alternately wetting and drying a piece of leaf which was " burnt " as the result of intense ascospore or

conidial spore infection. This helps to explain the widespread Tip Spotting of ascospore infection which appears during the early and late rains, when storms and sunshine alternate, and stresses the important role of heavily infected dead leaves in the spread of disease. It is difficult to obtain ascospore discharges from heavily infected dead leaves which have been allowed to moulder for 2 to 3 weeks in a pile, a fact which suggests that when an infected plantation is to be sprayed the dead leaves, when cut off, can be put in heaps and not burnt or buried.

Experiments are in hand to compare various concentrations of copper sprays and the long term effects on growth and yield of oil and oil emulsion sprays.

Panama Disease.—The first outbreaks of Panama Disease at Tombel were confirmed. This follows the discovery of the disease in the French Cameroons, and the Corporation has now no disease free plantation and few in which the spread is not increasingly serious.

Revised recommendations for control measures to delay the spread of Panama Disease were submitted.

Banana Borer Weevil.—This weevil was first recorded at Tombel in 1956, routine trapping in all plantations was begun and shows that this pest has already spread southwards into Ekona and Tiko.

Recommendations were made regarding standard sanitation measures and for the ordering of Aldrin for chemical control on this serious banana pest. In the fertilizer trials at Tombel it has been found that earthing up reduces borer attack because the necks of the corms are no longer exposed.

3. Crop Selection.

Attention has been focussed on the introduction and rapid multiplication of Panama Disease resistant varieties to replace Gros Michel as an exportable banana.

By splitting up and replanting twice a year, using an adequate irrigation system, copious fertilizers and goosenecking at 12 inches all plants as soon as they are breast high to encourage sucker production an annual sixteen-fold multiplication of Lacatan has been achieved. The 6 suckers introduced at the end of September 1954 had by April 1956 become sufficient to provide 6,500 pieces of planting material. These were used to plant three fertilizer and spacing trials totalling 15 acres on the best soil in the Tiko plain, a one-acre trial plot in Molyko and a further multiplication plot in Holtfoth, where the Banana Division has organised a successful flood irrigation system.

In the course of the year suckers of the variety Robusta and of the hybrid 1877 were received from Kew quarantine, and a mat of Lacatan was exchanged with the Manager, Bwinga Estate, for one of a Giant Cavendish type. These are undergoing initial multiplication at Ekona.

Suckers of the Trinidad Giant Cavendish are expected from Kew in 1958.

(b) OIL PALMS.

1. Soil Investigation.

There is at present only one oil palm fertilizer trial. It is at M'Pundu-Ekona and consists of 4 replications of a classical NPK trial with magnesium (Mg.) added to 2 replications and covers about 22 acres. It was planted in 1955 and by the beginning of 1957 some of the palms were flowering.

So far N and K have significantly increased growth rate, P has only had an effect when combined with N or K, and the greatest increase has been combined NPK. Increased growth has been accompanied by earlier flowering. Mg also seems to have hastened the time to first flowering.

Crown Disease and Little Leaf Disease, from which the young palms usually recover as they get older, have affected the most rapidly growing plants. The number of cases was particularly increased where K was applied alone, but this effect was counter balanced by the addition of Mg. This stresses the importance of well balanced nutrition in rapidly developing young palms. One of the objects of leaf analysis is to assess this balance between the elements in the palms receiving various fertilizer treatments, and in the new Laboratory at Ekona the nutrient contents of leaves taken from palms in this trial each month are now being analysed. So far, the K content has proved significantly higher in the leaves of palms which in the field have shown increased growth as a result of K fertiliser applications.

(c) RUBBER.

1. Soil Investigations.

A soil survey is being carried out in part of the Tiko plain which was at one time under bananas. The majority of this area cannot be recommended for banana cultivation, but with the exception of a few small localities where a thin skin of soil covers old lateritic formations the area seems suited to rubber. Some sections contain soils which are rather better than average, and one of these has been chosen for a cacao fertilizer trial.

2. Disease and Pest Investigations.

The clone PB 6/9 suffered from abnormal leaf fall at Missellele in 1956 and at Meanja in 1957. The primary cause seems to have been out of season wintering. In co-operation with the Managers observations on the wintering of all clones on the three rubber plantations are being made.

The irregular performance of seed gardens planted at the higher elevations in Ekona is under investigation.

(d) CACAO.

1. Soil Investigations.

The results so far obtained from the NPK fertilizer trial laid down in mature Trinitario cacao at Tombel in 1955 show such a wide variation in yield between individual trees and between plots that it may not be possible to work out the effects of the fertilizer treatments. The NPK trial on young cacao begun at Tombel in 1956 may not suffer from this disadvantage because the cacao is the more uniform Upper Amazon type.

Towards the end of the year a survey was carried out to see if the presence of layers of volcanic ash or of rock at varying depths has an effect on the mature cacao, and the results of this survey will be compared with the block yields which are being recorded by the Cacao Division.

2. Disease and Pest Investigations.

Black Pod Disease.—The K.D. cacao mistblowers applying 2·5 lbs. of Perenox in 15 gallons of water on a 3 weekly cycle during the cropping season have achieved a reasonable measure of control. An analysis of the yields of the trees in the NPK fertilizer trial showed, however, that there was still a loss of potential crop resulting from the destruction of immature pods just before the peak cropping period. It has been found that the disease is more prevalent on high yielding trees and that the greatest number of pods is on the trees at a time when temperature and humidity are most favourable for the spread of the fungus. Tests showed that the health of the trees had improved to such an extent that the canopy was too thick for the older mistblowers to reach pods on the upper branches. The new cacao mistblowers are more powerful and have an improved set of nozzles mounted on a fixed quadrant. It is hoped that these machines using Cocobre (which is specifically made for cacao) instead of Perenox on a shortened spray cycle during the critical period may provide even better control.

Root Disease.—During April an investigation into root disease in mature cacao at Tombel was undertaken. It was found that there were in fact two distinct diseases with differing rates of spread. Control measures were suggested.

(e) TEA.

1. Soil Investigations.

A survey was made of conditions at Tole where the growth of new plantings was irregular and where many of the tea seedlings had a chlorotic appearance. The cause of poor growth is attributed to certain cultural malpractices, such as clean weeding resulting in soil erosion, rather than to any unsuitability of the soil for tea cultivation, particularly as the mature tea is vigorous and healthy.

(f) PEPPER.

2. Disease and Pest Investigations.

Stem Borer.—During the late rains of 1956 damage to the vines by stem borer developed at Meanja. Moths hatched from the caterpillars found in the vines were named by the Commonwealth Institute of Entomology as new species of the genus *Anonaepestis*, only previously recorded in India and the Far East. The amount of damage increased during 1957. The control of such a pest is difficult and expensive, and if it continues to develop it may be unprofitable to continue pepper cultivation.

CAMEROONS DEVELO

(Incorporated under Nigeria

BALANCE SHEET A

31.12.1956 £	LIABILITIES.	£	£
	RESERVE in accordance with Section 19 of Ordinance No. 39 of 1946:—		
500,000	For Re-housing, Replanting, Hurricane Risks and Disease Control		600,00
834,137	RESERVE for Depreciation written off in excess of amount allowed under Income Tax Ordinance as at 31st December, 1955		834,13
	RESERVE for Retiring Gratuities to Workers not Members of Provident Fund	100,000	
	Less: Payments during the year	18,175	
		81,825	
100,000	*Add:* Transfer from Profit and Loss	18,175	100,00
	LOANS (unsecured, repayable by instalments):—		
500,000	Government of Nigeria (final instalment 6th December, 1970)	500,000	
475,489	Government of Nigeria (final instalment 21st July, 1969)	475,489	
550,000	Government of Nigeria (final instalment July, 1975)	550,000	
258,000	Government of Nigeria—1956 Loan	258,000	
350,000	Barclays Overseas Development Corporation Ltd. (final instalment 29th May, 1961)	300,000	2,083,4
	CREDITORS AND PROVISIONS:—		
—	Trade Creditors, Wages and Other Expenses ...	320,843	
—	Deferred Interest on Government Loans	149,993	
—	Leave and Passages	50,000	
	Income Tax:—		
—	Liability for 1957/58 Assessment	5,556	
—	Provision for 1958/59 Assessment	101,300	
495,072			627,6
15,117	PROFIT AND LOSS ACCOUNT		38,0
£4,077,815	*Carried forward* ...		£4,283,3

ENT CORPORATION.

linance No. 39 of 1946.)

' 31st DECEMBER, 1957.

12.1956 £	ASSETS.	£ *Cost to 31.12.1956*	£ *Additions during 1957*	£ *Cost to 31.12.1957*
	IMPROVEMENTS TO LEASEHOLD CONCESSIONS:—			
	Planting and Replanting	532,253	107,740	639,993
	Immature Cultivations	688,989	125,520	814,509
	Surveys	13,817	—	13,817
		1,235,059	233,260	1,468,319
	Buildings and Constructions ...	2,983,975	248,301	3,232,276
	Roads	247,928	20,017	267,945
	Rail Track	106,209	52,593	158,802
	Furniture and Equipment	214,649	16,652	231,301
		4,787,820	570,823	5,358,643
	EQUIPMENT:—			
	Plant and Machinery	579,489	189,432	768,921
	Railway Rolling Stock	179,695	6,524	186,219
	Marine Craft	240,911	15,050	255,961
		5,787,915	781,829	6,569,744
	Less: Cost of Assets retired 1957 ...			27,829
				6,541,915
	Less: Amounts written off to 31st December, 1957, calculated under the Provisions of the Income Tax Ordinance ...			4,388,783
)82,202				2,153,132
	MOTOR VEHICLES:—			
	Cost to 31st December, 1956 ...	224,505		
	Add: Additions during year ...	46,795		
		271,300		
	Less: Cost of Vehicles retired ...	45,876		
			225,424	
	Less: Amounts written off to 31st December, 1957		194,364	
30,131				31,060
	WORK IN PROGRESS:—			
29,724	Planting		34,216	
57,253	Buildings and Constructions ...		80,815	
53,266	Roads and Rail Track		21,298	
8,172	Furniture and Equipment		3,677	
—	Maintenance and Repairs		1,177	
4,914	Sundries		2,261	
				143,444
£ 65,662	*Carried forward* ...			£2,327,636

CAMEROONS DEVELO

(Incorporated under Nigeri

BALANCE SHEET AS AT 31

31.12.1956		
£		£
4,077,815	*Brought forward* ...	4,283,3

NOTE.—The total amount of Authorised Capital Expenditure outstanding as at 31st December, 1957, was £492,000.

A. H. YOUNG, *Chairman.*
W. L. BLOOMFIELD, } *Members.*
W. J. C. RICHARDS, }
A. P. FINLAY, *Chief Accountant.*

£4,077,815	£4,283,3

AUDITOR

In accordance with Section 17 of the Cameroons Development Corporation Ordinance 1946, we rep incorporated Returns from the various areas comprising the Corporation's Concessions.

We have obtained all the information and explanations we have required, and in our opinion the Bala and the explanations given to us, and as shown by the books and records of the Corporation.

ENUGU, NIGERIA.
31*st March*, 1958.

ENT CORPORATION.

dinance No. 39 of 1946.)

ECEMBER, 1957—(*continued*)

12.1956		£	£
£			
365,662	*Brought forward* ...		2,327,636
	Stocks (as verified by Officials of the Corporation):—		
842,054	Building Materials, Equipment, Consumable Stores and Stock in Trade (at cost or Standard Price Valuations)		888,895
340,937	Produce in Stock and Afloat (at market value)		334,620
181,216	Sundry Debtors...		169,430
152,716	Deposits and Prepayments		60,630
	Cash:—		
182,253	At Bank	483,767	
12,977	In Hand	18,368	
			502,135
,077,815			£4,283,346

PORT

we have examined the above Balance Sheet with the books of the Corporation in the Cameroons, in which are

t gives a true and fair view of the state of the Corporation's affairs, according to the best of our information

CASSLETON ELLIOTT & CO.,

Auditors.

CAMEROONS DEVELO

(Incorporated under Nigeria

Dr. **PROFIT AND LOSS ACCOUNT FO**

31.12.1956 £		£	£
	To Upkeep of Mature Areas and Production, Ancillary		
1,524,625	Services, Administration		1,784,45
	„ Medical Services	134,408	
	Less: Contributions by other Plantation Companies ...	20,199	
104,039			114,20
53,136	„ Welfare and Social Services		52,54
787,445	„ Balance carried down		996,44
£2,469,245			£2,947,66
	To Expenses of Chairman's and Secretary's Offices		
4,584	Remuneration of Chairman and Members	3,500	
4,716	Members' Travelling and Other Expenses	4,219	
8,307	Staff and Other Expenses	9,806	
			17,52
3,750	„ Agency and Service Fees and Expenses		3,75
1,315	„ Consultants' Fees and Expenses		1,00
	„ Concession Rent:—		
	The Government of Southern Cameroons	40,868	
18,886	*Less:* Allocated to Plantations	21,984	
			18,88
1,500	„ Audit Fee and Expenses		1,50
	„ Depreciation:—		
557,493	Written off Improvements to Concessions	541,970	
79,729	Written off Equipment	160,609	
31,606	Written off Motor Vehicles	42,229	
			744,80
89,645	„ Loan Interest		86,68
9,593	„ Balancing Allowance/Charge on Retired Assets ...		16
51	„ Bad Debts written off		1
73,936	„ Balance carried down		256,98
£885,111			£1,131,32
28,215	To Balance per last Account		—
—	„ Balance Unappropriated paid to Government of Southern Cameroons		15,11
11,630	„ Provision for Income Tax 1958/59 Assessment		101,30
18,974	„ Transfer to Reserve for Retiring Gratuities		18,17
—	„ Transfer to Reserve in accordance with Section 19 of Ordinance No. 39 of 1946		100,00
15,117	„ Balance carried to Balance Sheet		38,02
£73,936			£272,62

ENT CORPORATION.

dinance No. 39 of 1946.)

HE YEAR ENDED 31st DECEMBER, 1957. *Cr.*

1.12.1956 £		£	£
	By Revenue from Plantations:—		
	Bananas	2,214,510	
	Dried Bananas	6,706	
	Palm Products	239,334	
	Rubber	390,971	
	Cocoa	32,545	
	Pepper	3,014	
	Timber	60,582	
2,469,245			2,947,662
2,469,245			£2,947,662
787,445	By Balance brought down		996,446
79,284	„ Agency Earnings and Commission		79,894
18,382	„ Miscellaneous Receipts and Adjustments		54,981
£*885,111*			£1,131,321
73,936	By Balance brought down		256,985
—	„ Balance per last Account		15,117
—	„ Income Tax Excess Provision written back		518
£*73,936*			£272,620

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